

Appl. No. 10/689,342
Atty. Docket No. CM2536CQ
Amdt. dated August 3, 2006
Reply to Office Action of May 3, 2006
Customer No. 27752

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended) A self-bonded corrugated web comprising a primary pre-bonded web layer of thermoplastic fibers having a substantially uniform thickness in a z direction, the primary pre-bonded web arranged to form corrugations oriented in a corrugation pattern of parallel corrugation lines, the corrugated web includes a primary bonding pattern of heat- or melt-fusion bonded regions forming a plurality of first primary bonding pattern continuous lines and second primary bonding pattern continuous lines, the first primary bonding pattern continuous lines are parallel to each other and the second primary bonding pattern continuous lines are parallel to each other, the first primary bonding pattern continuous lines are non-parallel to the second primary bonding pattern continuous lines, the first primary bonding pattern continuous lines and the second primary bonding pattern continuous lines are arranged non-parallel to the corrugation lines, the first and second primary bonding pattern continuous lines intersect at least two of the corrugation lines for stabilizing the corrugations of the corrugated web.

Claim 2. (Original) A self bonded corrugated web according to claim 1, wherein each of the corrugation lines of the corrugation pattern is connected to at least one neighboring corrugation line by at least one primary bonding pattern line.

Claim 3. (Canceled)

Claim 4. (Currently Amended) A self bonded corrugated web according to claim 1, wherein the first and second primary bonding pattern continuous lines are intersecting lines circumscribing regions unbonded by the primary bonding pattern.

Claim 5. (Currently Amended) A self bonded corrugated web according to claim 4, wherein the regions unbonded by the primary pattern contain at least 3, ~~preferably at least 5, and more preferably at least 9~~ corrugations.

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Claim 6. (Currently Amended) A corrugated web according to claim 4, wherein regions unbonded by the primary pattern contain less than 20, ~~preferably less than 15~~ corrugations.

Claim 7. (Previously Presented) A self bonded corrugated web according to claim 1, wherein the primary bonding pattern lines are continuous straight lines.

Claim 8. (Original) A self-bonded corrugated web according to claim 1, wherein the corrugation pattern lines are essentially parallel to the length dimension of the web.

Claim 9. (Currently Amended) A self bonded corrugated web according to claim 1, wherein the primary bonding pattern ~~[[has]]~~ further comprises a secondary bonding pattern comprising a plurality of bonding points.

Claim 10. (Original) A self bonded corrugated web according to claim 1, wherein the web exhibits a low pressure loft of at least 18 [$\mu\text{m}/(\text{g}/\text{m}^2)$].

Claim 11. (Original) A self bonded corrugated web according to claim 1, wherein the corrugated web exhibits a high pressure loft of at least 11 [$\mu\text{m}/(\text{g}/\text{m}^2)$].

Claim 12. (Original) A self bonded corrugated web according to claim 1, wherein the bonding is patterned embossing.

Claim 13. (Original) A self bonded corrugated web according to claim 1, wherein the corrugations form vale regions and crest regions, and wherein the heat- or melt-bonding is only performed in the vale regions.

Claim 14. (Original) A self bonded corrugated web according to claim 1, wherein the corrugations are deformed in the region of the primary bonding pattern so as to form overlaying layers of the primary web which are bonded to each other.

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Claim 15. (Withdrawn) A method of shaping and bonding a primary web for forming a self-bonded corrugated web, the method comprising the steps of:

providing an essentially flat, fiber containing pre-bonded primary web,
shaping the web into corrugations thereby forming corrugation lines,
autogenously bonding fibers of the corrugated web by means of a primary bonding pattern of a plurality of primary bonding pattern lines, the plurality of primary bonding pattern lines being arranged non-parallel to the corrugation lines and intersecting at least two of the corrugation lines.

Claim 16. (Withdrawn) A method according to claim 15, wherein the corrugations form vale and crest regions and the bonding of the fibers of the web is essentially only applied to the vale regions.

Claim 17. (Withdrawn) A method according to claim 15, further comprising the step of deforming the corrugations in the region of the primary bonding pattern so as to form overlaying layers of the primary web, which are bonded to each other in the subsequent bonding step.

Claim 18. (Withdrawn) A method according to claim 17, wherein the bonding lines of the bonding pattern consists of a secondary bonding pattern comprising a plurality of linearly arranged bonding points.

Claim 19. (Currently Amended) A self-bonded corrugated web having a primary pre-bonded web layer of thermoplastic fibers having a substantially uniform thickness in a z direction, the primary pre-bonded web arranged to form corrugations oriented in a corrugation pattern of parallel corrugation lines, the corrugated web comprising:

a primary bonding pattern of heat- or melt-fusion bonded regions forming a plurality of first primary bonding pattern lines and second primary bonding pattern lines, wherein said first primary bonding pattern lines are parallel to each other and said second primary bonding pattern lines are parallel to each other, wherein said first primary bonding pattern lines are non-parallel to said second primary bonding pattern lines, wherein said first primary bonding pattern lines and said second primary bonding pattern lines are arranged non-parallel to said corrugation lines, and wherein said first and second

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primary bonding pattern lines are solid embossing lines that intersect at least 3
corrugations.